



Rediscovery of an endemic and rare *Premna paucinervis* (Verbenaceae) from the Western Ghats after a century

A.J. Robi*, Jomy Augustine¹, N. Sasidharan and P.S. Udayan²

Kerala Forest Research Institute (KFRI), Peechi – 680 653, Thrissur, Kerala, India.

¹Department of Botany, St. Thomas College, Pala – 686 574, Kottayam, Kerala, India.

²Research Centre and P.G. Department of Botany, Sree Krishna College, Ariyannur P.O., Guruvayur, Thrissur, Kerala – 680 102, India.

*E-mail: ajrobin80@gmail.com

Abstract

Premna paucinervis (C.B. Clarke) Gamble is endemic to the Southern Western Ghats. It has been rediscovered after type collection from the Wagamon hills along the Western Ghats of Kerala after a lapse of 140 years and describing the hitherto unknown fruits. A detailed taxonomic description and color photographs of the species are provided.

Keywords: *Premna paucinervis*, Rediscovery, Southern Western Ghats, Verbenaceae.

Introduction:

The genus *Premna* L. with c. 200 species worldwide and is distributed chiefly in Tropical and Subtropical Asia, Africa, Australia and the Pacific Islands (Harley *et al.*, 2004). In India, it is represented by 31 species and 6 varieties (Rajendran & Daniel, 2002). During the botanical survey in Wagamon forest areas in southern Kerala, a *Premna* plant was collected which is distinct from the other *Premna* spp. reported from the Western Ghats. Further study identified this to be *Premna paucinervis* (C.B. Clarke) Gamble, which was never collected after 1872 (Rajendran & Daniel, 1994). *P. paucinervis* was first collected by R.H. Beddome (1872) from Anamalays, Western Ghats (Tamil Nadu) and treated under *Premna purpurascens* Thwaites. Clarke (1885) considered this as *P. purpurascens* Thwaites var. *paucinervis* but later, Gamble (1924) treated this as a distinct species and named it as *P. paucinervis*.

The present collection, made from Wagamon forest area of Kottayam district is a rediscovery of this endemic plant, outside its type locality, after a lapse of 140 years. After critical examination and further comparison with the original description and type specimen available at K (280, Holotype!) and MH (Acc. No. 39876!), its identity has been confirmed as *Premna paucinervis*. The voucher specimens are housed at Kerala Forest Research Institute (KFRI) herbarium. A description based on fresh specimens is given for easy identification.

Premna paucinervis (C.B. Clarke) Gamble, Fl. Pres. Madras 1095. 1924; A.N. Henry *et al.*, J. Bombay Nat. Hist. Soc. 79: 693. 1979; Moldenke, Phytologia Mem. II: 264. 1980; Vajr. & P. Daniel in Jain & Sastry, Mat. Cat. Threat. Pl. India 31. 1983; Ahmedullah & Nayar, Endem. Pl. Indian Region 1: 133. 1987; Sriniv. in A.N. Henry *et al.*, Fl. Tamil Nadu 2: 167. 1987; Rajendran & P. Daniel, Indian Verbenaceae 267. 2002. *Premna purpurascens* Thw. var. *paucinervis* Clarke in Hook. f., Fl. Brit. India 4: 574. 1885. *Typus*:- INDIA, Kerala, Anamalays, 3000, June 1872, R.H. Beddome 280 (Holotypus, K). *Premna purpurascens* sensu Beddome, Fl. Sylv. S. India 173. 1872, non Thwaites 1861; C.E.C. Fischer in Rec. Bot. Surv. India 9 (1): 140. 1921.

Fig.1

Epiphytic climber (sometimes lithophytic); stem terete, glabrous and lenticellate; branchlets subterete, dark brown, young parts sparsely pubescent, with raised circular or semi-circular leaf scars. Leaves opposite-decussate, lamina chartaceous, ovate, elliptic-oblong, 4–17 × 4–7.5 cm, acute to obtuse at base, entire to slightly repand at margins, abruptly acuminate at apex, membranous, glabrous on both surfaces, minutely puberulous on nerves beneath, pungent smell when bruised; lateral nerves 4–6 pairs, prominent beneath, marginally looped, nervules reticulate; petioles slender, 2–4.5 cm long, slightly swollen at both ends (visible only in live specimens), adxially channeled, puberulous, glabrous when mature.

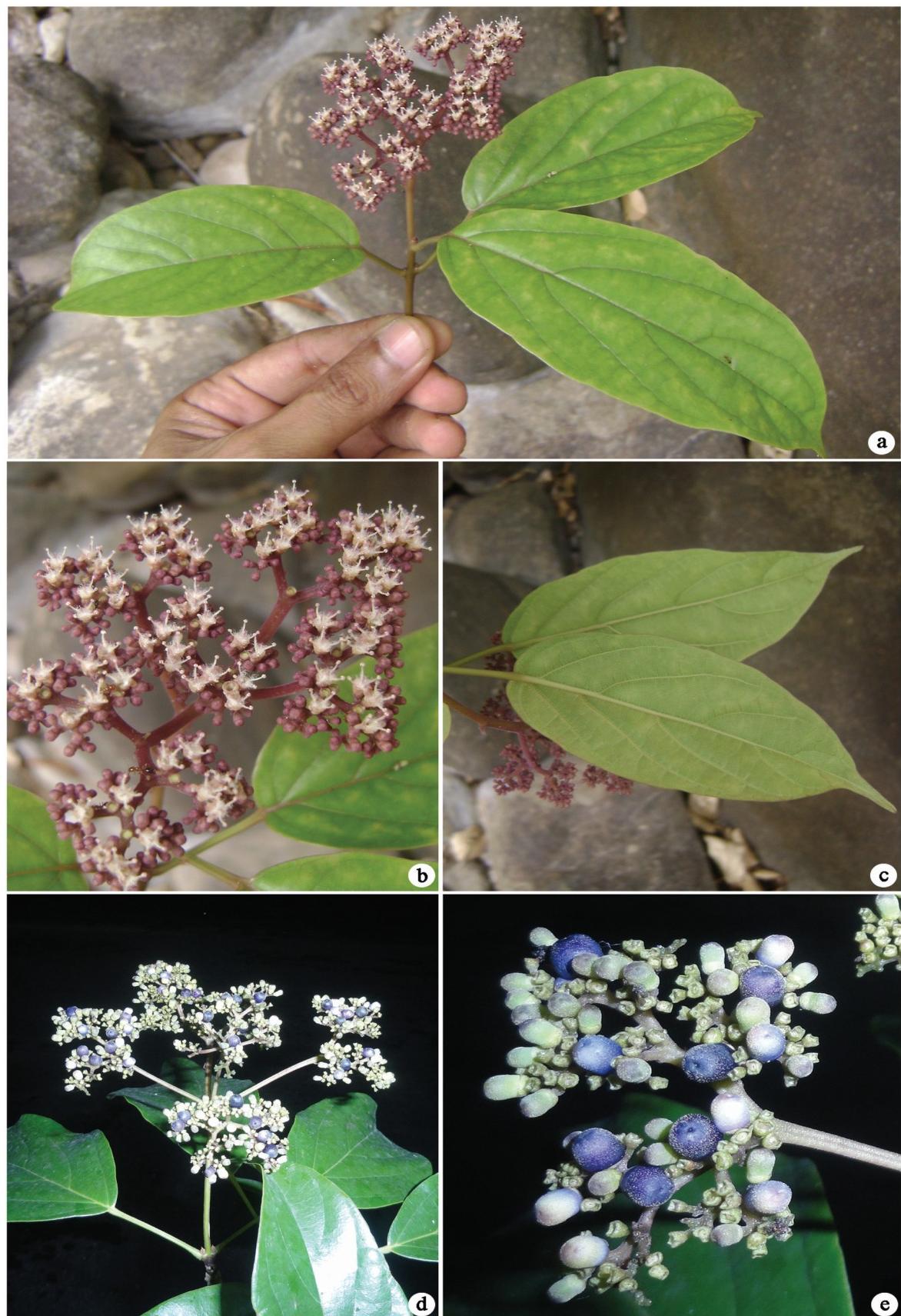


Fig. 1 *Premna paucinervis*: a-c Flowering twig; d,e Fruiting twig

Inflorescence terminal corymbs, composed of 3–4 opposite branched cymes, peduncle red colored, ±5 cm long, slender, obtusely 4-angular, pubescent, slightly sulcate between angles; bracts foliaceous, lanceolate; bractlets subulate, 3 mm long. Flowers sessile, 2 mm across, minute. Calyx cupular, 2-lipped, 5-toothed, 1 × 1 mm, pubescent; lower lip subentire; upper lip minutely 3-toothed, ciliate at margins. Corolla infundibular, 2-lipped; lower lip 3-lobed, lobes obovate, obtuse; upper lip 1-lobed, entire; tube narrow, ±2 mm long, densely villous at throat. Stamens 4, didynamous, epipetalous; filaments filiform, 2–3 mm long, slightly exserted, slightly villous; anthers ovoid, 2-celled. Ovary obovoid, truncate at apex, 1 × 1 mm, glabrous; style slender, 2 mm long; stigma 2-lobed, divaricate, lobes equal, subulate. Drupes oblate, flattened at the poles, c. 4 × 3 mm, surface punctuate, dark blue when ripe; fruiting calyx saucer-shaped c. 2 mm across, pubescent, margin undulate, slightly divided; seeds obovoid, 3 mm long, smooth.

Ecology: The associated plant species found in the habitat are *Tarenna canarica* (Bedd.) Bremek., *Diospyros nilagirica* Bedd., *Humboldtia vahliana* Wight, *Diospyros hirsuta* L.f., *Syzygium laetum* (Buch.-Ham.) Gandhi, *Blachia umbellata* (Willd.) Baill. The habitat is prone to destruction because of the Rubber plantation activities and encroachment. It inhabits in near rocky areas on the banks of river. Flowering & Fruiting occurs between March to June and it is locally rare.

Specimens examined: INDIA, Kerala, Idukki district, Aruvioda, 29.4.1994, Jomy Augustine 13649 (KFRI); Kottayam district, Wagamon, 500 m, 03.4.2010, A. J. Robi 22999 (KFRI); Kulamavu, 700 m, 24.4.2013, A. J. Robi 23400 (KFRI); Palakkad district, Anamalays, head of Nelliampathy Ghats, 3000, s.die, R. H. Beddome, s. n. (MH!). **Tamil Nadu**, Anamallays, 3000, June 1872, R. H. Beddome 280 (Holotype, K!).

Distribution: India (Kerala, Tamil Nadu).

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